ABSTRACT OF THE DISCLOSURE

A method up-samples a compressed bitstream. The compressed bitstream is partially decoding to produce macroblocks. Each macroblock has DCT coefficients according to a predetermined dimensionality of the macroblock. DCT filters are applied to the DCT coefficients of each macroblock to generate up-sampled macroblocks for each macroblock, there is one up-sampled macroblock generated by each filter. Each generated up-sampled macroblock has the predetermined dimensionality.